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AMENDMENTS TO THE CLAIMS

1-13 (cancelled)

14. (Previously presented) A method according to claim 26, characterized in that the atmosphere is air.

15. (Previously presented) A method according to claim 14, characterized in that the air contains at least one further gaseous medium.

16. (Previously presented) A method according to claim 14, characterized in that the lyosol is introduced dropwise into the air.

17. (Previously presented) A method according to claim 14, characterized in that the lyosol is sprayed into the air.

18. (Previously presented) A method according to claim 14, characterized in that the lyosol is screened according to size by the air which is directed in opposition to gravity.

19. (Previously presented) A method according to claim 14, characterized in that the velocity of the air diminishes in the direction of flow.

20. (Previously presented) A method according to claim 26, characterized in that the substantially globular lyogel is trapped in a layer of water.

21. (Previously presented) A method according to claim 26, characterized in that the lyosol is formed from silicic acid and mineral acid.

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22. (Previously presented) A method according to claim 26, characterized in that the lyosol is formed from a sodium water-glass solution and hydrochloric acid.

23-25. (Cancelled)

26. (Currently amended) A method of producing substantially globular aerogels wherein:

- i) gel forming components are mixed to produce a lyosol;
- ii) the lyosol is introduced into an atmosphere flowing which flows substantially against the direction of gravity to form a substantially globular lyogel; and
- iii) the substantially globular lyogel is converted to an aerogel.

27. (Currently amended) A method of producing substantially globular silylated lyogels wherein:

- i) gel forming components are mixed to produce a lyosol;
- ii) the lyosol is introduced into an atmosphere flowing which flows substantially against the direction of gravity to produce a substantially globular lyogel; and
- iii) the substantially globular lyogel is reacted with a silylating agent to form a substantially globular silylated lyogel.

28. (Currently amended) A method of producing substantially globular aerogels wherein:

- i) gel forming components are mixed to produce a hydrosol;
- ii) the hydrosol is introduced into an atmosphere flowing which flows substantially against the direction of gravity to form a substantially globular hydrogel; and
- iii) the substantially globular hydrogel is converted to an aerogel;

wherein the hydrosol is formed from silicic acid and mineral acid and wherein the substantially globular hydrogel is trapped in a layer of water.